

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii 96813

May 13, 2010

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Land Board Members:

**SUBJECT: REQUEST APPROVAL OF CONTRACT WITH THE HUI KU MAOLI
OLA, LLC TO PARTICIPATE IN THE STATE FOREST
STEWARDSHIP PROGRAM.**

BACKGROUND:

The Hawaii State Forest Stewardship (FS) Program provides technical and financial assistance to private landowners committed to the stewardship, conservation and enhancement of important forest resources that provide a variety of private and public benefits. This assistance enables private landowners to develop and implement long-term multi-resource management plans to restore and maintain primary forest values including forest product and watershed productivity, wildlife habitat availability, recreational opportunities, and educational opportunities. The Program was established through Act 327, SLH 1991. Annual funding is provided by the Conveyance Tax pursuant to Act 195, SLH 1993, Section 247-7, Hawaii Revised Statutes, whereby twenty-five percent of the amount collected from this tax is paid into the Forest Stewardship and Natural Area Partnerships Programs.

The FSP is implemented pursuant to Chapter 195-F, HRS. Forest Stewardship Agreement are developed following a sequence of applications and management plans that are submitted by interested parties, which are reviewed by the FS Advisory Committee. Upon the final approval of a FS management plan by the Committee, the State Forester and the Board of Land and Natural Resources review and approval of the project is required prior to execution of the Agreement. The FS Advisory Committee approved the Hui Ku Maoli Ola management plan on June 20, 2008, and the State Forester approved the management plan on July 16, 2008. Staff now seeks Board approval of the FS Agreement with the Hui Ku Maoli Ola LLC, which incorporates their FS management plan (Exhibit A).

Hui Ku Maoli Ola, LLC Forest Stewardship project proposes to restore 30 acres of a mixed non-native, alien forest to a native forest community. The State land designation for the parcel is Agriculture and Conservation District and corresponds to TMK 4-6-014:001 and 4-6-014:006.

The Forest Stewardship project will be in the Agriculture District zoned lands.

DISCUSSION:

Hui Ku Maoli Ola, LLC intends to remove alien species and replant the areas with native plants that would have once occupied the area. In addition to the native species naturally occurring on the property, they intend on creating a safe harbor for highly endangered species. The land managers will be creating a trail system through their restoration work to allow the public opportunities to safely explore the native natural resources and share in proper watershed management.

Native Species Restoration and Habitat Improvement: The ultimate management objective is native plant species restoration and habitat improvement. They intend to complete a top to bottom restoration by installing ground covers, shrubs and trees. A large diversity of both flowering plants and ferns will be out-planted to offer habitat for a large diversity of species as well as the increased educational value of the trail system. The project will initially focus in the riparian area and move across the property in 2 to 6 acre increments. This incremental restoration technique will allow Hui Ku Maoli Ola, LLC to manage the alien species, control erosion, and protect out-planted species. Upon completion, this project will directly increase the number of native plants within the valley.

Wildlife Habitat Enhancement: By improving and restoring the native terrestrial habitat, Hui Ku Maoli Ola will be increasing habitat for native fauna, which may lead to an increased recruitment. Additionally, the improvement of the vegetation surrounding the stream corridor will improve the stream condition and water quality creating a more suitable habitat for native aquatic biota of both freshwater and marine environments.

Watershed Protection and Improvement: This project seeks to improve and protect the watershed by minimizing erosion runoff from land sources. The key to lower suspended solids in Hawaii's surface run-off is to reduce the amount of barren exposed soils. Currently the property has many alien trees that limit the understory vegetation leaving a large amount of exposed soil susceptible to erosion. Removing the large alien trees and planting a multi-layer of natives the ground exposure will be reduced during the project construction period and as the forest matures.

Forest Recreation Enhancement: Hui Ku Maoli Ola, LLC will enhance forest recreation opportunities by developing a trail system that enables community members to easily and safely explore the natural and cultural resources within the property. Two to four foot walking paths will be constructed to safely reach out planting sites without stepping on the newly planted plants or the fragile riparian areas. Trails will be designed to include key aesthetic attributes on the property and will not exceed a ten percent grade to avoid erosion pressure. The project will install over a mile of trail system when completed.

Community Education: Hui Ku Maoli Ola, LLC will provide an education program aimed at

teaching proper watershed management skills for people to take back and implement with in their own communities. Groups will be led on informational and educational tours by qualified individuals trained in Hawaii's environment and culture. Trail systems will be planted with both flowering plants and ferns to increase the educational value of the trail system, as well as offer habitat for a large diversity of species.

Through this Forest Stewardship Agreement, Hui Ku Maoli Ola, LLC is committed to maintaining this project as a healthy, biologically diverse native forest area for restoration and educational purposes through the year 2020. Furthermore, it is the intention of Hui Ku Maoli Ola, LLC and the landowner (Kamehameha Schools) to continue to manage this area under what has been outlined in the FS management plan. The costs associated with the proposed practices are consistent with the intensity of management required for these practices.

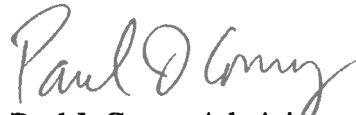
A total of \$408,150.00 in State Forest Stewardship funding, is being requested to cost share with Hui Ku Maoli Ola LLC, who will be contributing \$464,950.00 toward the completion of the project. Cost-share funds are provided in reimbursement payments as management practices are completed through the state fiscal year 2020.

RECOMMENDATIONS:

That the Board:

1. Approve this contract agreement with the Hui Ku Maoli Ola, LLC to participate in the State Forest Stewardship Program subject to the following:
 - A. Availability of State Forest Stewardship funds.
 - B. Review of the agreement and approval as to form by the Department of the Attorney General.
2. Authorize the Chairperson to amend, finalize, and execute the subject agreement subject to the review and approval by the Department of Attorney General.

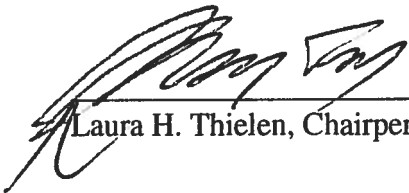
Respectfully submitted,



Paul J. Conry, Administrator
Division of Forestry and Wildlife

Attachment: (Exhibit A)

APPROVED FOR SUBMITTAL:



Laura H. Thielen, Chairperson

**STATE OF HAWAII
FOREST STEWARDSHIP AGREEMENT**

This AGREEMENT, made this _____ day of _____, 20____, by and between the BOARD OF LAND AND NATURAL RESOURCES, STATE OF HAWAII ("STATE"), by its Chairperson, whose address is 1151 Punchbowl Street, Honolulu, Hawaii 96813, and Hui Ku Maoli Ola, LLC, ("LANDOWNER") whose address and federal and state taxpayer identification numbers are as follows: 41-888 Kakaina Street, Waimanalo, Hawaii 96795
Federal: 99-0342736 State: W-20554094-01

Business address

Federal and state taxpayer identification numbers

RECITALS

WHEREAS, Chapter 195F, Hawaii Revised Statutes (HRS), provides for the establishment of a forest stewardship program to encourage and assist private landowners in managing, protecting, and restoring important watersheds, native vegetation, fish and wildlife habitats, isolated populations of rare and endangered plants, and other forest lands that are not recognized as potential natural area reserves; and

WHEREAS, in accordance with HRS Chapter 195F and Title 13, Subtitle 5, Part 1, Chapter 109 of the Hawaii Administrative Rules (HAR), the LANDOWNER has applied, and qualifies, for participation in the forest stewardship program; and

WHEREAS, the LANDOWNER has submitted a forest stewardship management plan, as set forth in Attachment 1 hereto, that the STATE agrees is consistent with the policies, goals, and objectives of the forest stewardship program; and

WHEREAS, the STATE desires to assist the LANDOWNER in implementing the forest stewardship management plan with financial and other assistance; and

WHEREAS, money is available to fund this agreement pursuant to: Act 195, SLH 1993, Hawaii Revised Statutes, Section 247-7.

NOW, THEREFORE, in consideration of the promises contained in this AGREEMENT, the STATE and the LANDOWNER agree as follows:

A. SCOPE OF SERVICES

The LANDOWNER hereby agrees to implement the forest stewardship management plan set forth in Exhibit A and the project described in the "Scope of Services" set forth in Attachment S1 in proper and satisfactory manner as determined by the STATE, both of which are hereby made a part of this AGREEMENT. The STATE hereby agrees to assist the LANDOWNER in implementing the forest stewardship management plan, all in accordance with the terms and conditions set forth in Attachments S1, S2, S3, S4, S5, and 6, attached hereto.

B. COMPENSATION

The LANDOWNER shall be compensated for performance of the project under this AGREEMENT according to the "Compensation and Payment Schedule," set forth in Attachment S2, which is hereby made a part of this Agreement.

C. TIME OF PERFORMANCE

The performance required of the LANDOWNER under this AGREEMENT shall be completed in accordance with the "Time of Performance" set forth in Attachment S3, which is hereby made a part of this AGREEMENT.

D. CERTIFICATE OF EXEMPTION FROM CIVIL SERVICE

The "State of Hawaii Certificate of Exemption from Civil Service," set forth in Attachment S4, is hereby made a part of the AGREEMENT.

E. OTHER TERMS AND CONDITIONS

The "State of Hawaii Special and General Conditions for Forest Stewardship Program Agreements," set forth in Attachment S5, and the General Conditions attached hereto, are hereby made a part of this AGREEMENT. For the purposes of this AGREEMENT the term "CONTRACTOR" in the "General Conditions" shall mean the LANDOWNER.

F. STANDARDS OF CONDUCT DECLARATION

The "Standards of Conduct Declaration" by LANDOWNER, set forth in Attachment S6, is hereby made a part of this AGREEMENT. For the purposes of this AGREEMENT the term "CONTRACTOR" in the "Standards of Conduct Declaration" shall mean the LANDOWNER.

IN WITNESS WHEREOF, the parties execute this AGREEMENT by their signatures to be effective as of the date first above written.

STATE

By _____
Chairperson of the Board of Land and Natural
Resources

Print Name

Date _____

LANDOWNER

By _____

Print Name

Date _____

Approved by the Board of
Land and Natural Resources on

_____.

APPROVED AS TO FORM:

Deputy Attorney General

LANDOWNER'S ACKNOWLEDGMENT

STATE OF HAWAII)
) SS.
COUNTY OF _____)

On this _____ day of _____, 20____, before me personally appeared _____, to me personally known, who being by me duly sworn, did say the he/she is the _____, the LANDOWNER named in the foregoing instrument, and the he/she is authorized to sign said instrument on behalf of the LANDOWNER, and acknowledges that he/she executed said instrument as the free act and deed of the LANDOWNER.

Notary Public, State of Hawaii

My Commission Expires: _____

Date of the Notarized Document: _____

Number of Pages: _____

Identification or Description of the Document being Notarized: _____

Printed Name of Notary: _____ Circuit

Notary's Signature and Notary's Official Stamp or Seal Date



STATE OF HAWAII
SCOPE OF SERVICES

SECTION 1 - SCOPE OF WORK

- 1.1 MANAGEMENT AREA - The project area to be managed is the Hui Ku Maoli Ola Forest Stewardship project area; TMK NUMBER(S) (1) 4-6-014:001 and (1) 4-6-014:006 as designated on maps found in Exhibit A to this AGREEMENT.
- 1.2 THE PRIMARY OBJECTIVES - The STATE and LANDOWNER shall direct their efforts under this AGREEMENT to do the following: fund the management of and manage the natural resources of the thirty (30) acres Hui Ku Maoli Ola Forest Stewardship project area ("Forest Stewardship project area") in accordance with the MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT, and all approved amendments thereto, with the intention of restoring a native forest community in the Kaneohe community.
- 1.3 SCOPE OF WORK - The LANDOWNER shall perform the following technical and professional services:
- (a) Management plan. The LANDOWNER shall carry out the management activities outlined in the approved MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT.
 - (b) Consultation. The LANDOWNER shall be available for consultation regarding progress, upon request by the STATE.
- 1.4 AUTHORITY TO CARRY OUT MANAGEMENT PLAN - The LANDOWNER hereby represents that it has authority to carry out the MANAGEMENT PLAN and that it is the landowner of "Forest Stewardship project area" as defined in Section 195F-2, Hawaii Revised Statutes, as amended.
- 1.5 NO INCONSISTENT ACTIVITIES - The LANDOWNER shall not take any action on the "Forest Stewardship project area", which will undermine or conflict with the approved MANAGEMENT PLAN.



STATE OF HAWAII SCOPE OF SERVICES

II. SECTION 2 - CONTROL AND PROGRESS OF THE WORK

2.1 REPORTS - The LANDOWNER shall submit to the STATE, reports showing work accomplished at the following times:

- (a) Progress Reports. A progress report shall be due on December 31 of each year under this AGREEMENT for which funding has been approved. This report shall include a description of the approved MANAGEMENT PLAN accomplishments and activities, areas needing technical advice, an accounting of expenditures with documentation, and proposed modifications to the current year's management activities. This report shall be submitted to the STATE within 30 days following the due date. If the LANDOWNER would like more than 2 reimbursements per year, a progress report shall accompany each reimbursement request and the "Forest Stewardship project area" shall be made available for a site visit by Department of Land and Natural Resources personnel.
- (b) Annual Report. An annual report shall be due on or before June 30 of each year under this AGREEMENT for which funding has been approved in order to ascertain the need to amend the contract for the following year. In the event the contract is executed less than 6 months prior to June 30, then no annual report is due on June 30, 2007. This report shall include a description of MANAGEMENT PLAN accomplishments and activities, areas needing technical advice, and proposed modifications to the next year's approved management objectives, projects and budget. This report shall also include a detailed accounting of expenditures for the preceding 12-month period to provide the basis for the annual reconciliation of the STATE's and the LANDOWNER's respective shares of funding as determined pursuant to Attachment S3, Section 2.1. This report shall be submitted to the STATE within 60 days of due date. This report may also request, subject to approval by the STATE, changes to the management plan, for either or both the practice implementation schedule and/or the budget/payment schedule in order to best consolidate and rectify the past year's outcomes or lack thereof.



STATE OF HAWAII
SCOPE OF SERVICES

- 2.2 DELEGATION OF AUTHORITY - As used herein and throughout this AGREEMENT, unless the context clearly indicates otherwise, the STATE shall include the State of Hawaii Department of Land and Natural Resources and its authorized employees, agents and representatives.



STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULESECTION 1 – PAYMENT1.1 SCOPE OF PAYMENT -

- (a) STATE's Payment. In full satisfaction of the STATE's funding share of the approved MANAGEMENT PLAN, which is contingent upon satisfactory completion by the LANDOWNER of the management activities described in the approved MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT, the STATE agrees to pay the LANDOWNER a total sum not to exceed four hundred eight thousand one hundred fifty and 00/100 Dollars (\$408,150.00) according to the schedule outlined below that includes fiscal year 2011 through 2020 for completion of the management activities described in the approved MANAGEMENT PLAN. Payments shall be made by the STATE to the LANDOWNER as partial annual reimbursements for actual expenditures made by the LANDOWNER in completing the management activities described in the approved MANAGEMENT PLAN only after the corresponding progress or annual report has been reviewed by the STATE and all reported management activity accomplishments have been verified following an inspection of the "Forest Stewardship project area" by the STATE. Actual expenditures may include but are not limited to in-kind services such as heavy equipment operation and sources of labor. All funds to be paid by the STATE to the LANDOWNER shall be encumbered on an annual basis for the forthcoming fiscal year provided that the STATE has approved the continuation of management activities outlined in Exhibit A of this AGREEMENT for the forthcoming fiscal year.

If the allocated annual funds are encumbered or fully exhausted due to the LANDOWNER not completing all of the management activities described in the MANAGEMENT PLAN for that year, the LANDOWNER may request that these funds be incorporated in the following year's encumbrances to complete the management activities which were not completed, if there are sufficient STATE funds to accommodate this request. If approved by the STATE, this will be incorporated in written amendment to the AGREEMENT.



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COMPENSATION AND PAYMENT SCHEDULE

If in any fiscal year the STATE does not appropriate, and/or the STATE does not approve the expenditure of, funds sufficient to meet the STATE's funding share of the approved MANAGEMENT PLAN, this AGREEMENT shall automatically terminate without penalty at the end of the last fiscal year for which any funds have been appropriated and approved, subject to Attachment S5, Section 4.1, regarding partial State funding.

- (b) LANDOWNER's Share. In full satisfaction of the LANDOWNER's funding share of the approved MANAGEMENT PLAN, the LANDOWNER agrees to fully complete the management activities described in the approved MANAGEMENT PLAN, and to initially assume all corresponding actual annual expenditures in expectation of the STATE's partial reimbursement for satisfactory completion of these management activities. Expenditures for implementation of the approved MANAGEMENT PLAN which are less than the amounts allocated in the approved budget may be made by the LANDOWNER in its discretion so long as the quality of materials and work as called for in the approved MANAGEMENT PLAN are not adversely affected.



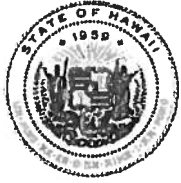
STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULE**HUI KU MAOLI OLA FOREST STEWARDSHIP PROJECT****BUDGET/PAYMENT SCHEDULE:**

YEAR	Total Budget	Land Owner share	State Share
1	\$125,700	\$61,900	\$63,800
2	\$110,000	\$55,650	\$54,350
3	\$128,800	\$67,550	\$61,250
4	\$89,800	\$48,550	\$41,250
5	\$69,800	\$38,550	\$31,250
6	\$69,800	\$38,550	\$31,250
7	\$69,800	\$38,550	\$31,250
8	\$69,800	\$38,550	\$31,250
9	\$69,800	\$38,550	\$31,250
10	\$69,800	\$38,550	\$31,250
Total	\$ 873,100	\$464,950	\$408,150

1.2 PAYMENT SCHEDULE –

- (a) Progress Payment. Within 30 days following receipt of the progress report as provided in Attachment 1, Section 2.1(a) for each year for which the STATE has agreed to pay the LANDOWNER as outlined in the schedule above and for which funding has been appropriated, the STATE shall pay to the LANDOWNER a portion of the STATE's funding share of the approved MANAGEMENT PLAN as a partial reimbursement of actual expenditures made to complete approved management activities. This payment shall be subject to the LANDOWNER's satisfactory completion of the corresponding approved management activities described in the approved MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT, and calculated on the basis of actual expenditures made by the LANDOWNER. This payment shall also be subject to the STATE's approval of such progress report.
- (b) Annual/Final Payment. Within 30 days of receipt of the annual report as provided in Attachment S1, Section 2.1(b), the STATE shall pay to the LANDOWNER the balance of the STATE's approved annual funding share. This payment shall be subject to the LANDOWNER's satisfactory completion of the corresponding



STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULE

annual management activities described in the approved MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT, and calculated on the basis of actual expenditures made by the LANDOWNER.

- (1) Annual or Final Acceptance and Payment - Annual or final acceptance means a written notice from the STATE to the LANDOWNER advising the LANDOWNER of the satisfactory fulfillment of the AGREEMENT's annual or final requirements.

- 1.3 UNAUTHORIZED WORK - The LANDOWNER shall not receive matching STATE funds for management activities not designated in the approved MANAGEMENT PLAN. All work completed by the LANDOWNER prior to receipt of a fully-executed copy of this AGREEMENT, and prior to STATE approval of funding for any subsequent years and prior to STATE approval of any subsequent amendments to the approved MANAGEMENT PLAN, shall be at the LANDOWNER's own volition and risk, including work performed during the period of any deliberations by the STATE in anticipation of approval; provided, however, that if funding and/or amendments applicable to such work are subsequently approved, the LANDOWNER may be paid for such work even if performed prior to such approval.

SECTION 2 - FISCAL RECORDS MAINTENANCE, RETENTION, AND ACCESS

- 2.1 The LANDOWNER shall maintain, in accordance with generally acceptable accounting practices, fiscal records and supporting documents and related files, papers and reports that adequately reflect all direct and indirect expenditures and management and fiscal practices materially related to the LANDOWNER's performance of services paid for by State funds under this AGREEMENT.
 - (a) The STATE, the Comptroller of the State of Hawaii, and any of their authorized representatives, the committees (and their staff) of the Legislature of the State of Hawaii, and the Legislative Auditor of the State of Hawaii shall have the right of access to any book, document, paper, file, or other records of the LANDOWNER that is materially related to the performance by the LANDOWNER of services



STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULE

funded by the STATE under this AGREEMENT, in accordance with generally accepted audit procedures, for the purposes of monitoring and evaluating the LANDOWNER's performance of services and the LANDOWNER's management program and fiscal practices to assure the proper and effective expenditure of funds under this AGREEMENT; provided, however, that no party conducting any such audit or examination shall copy, distribute, or retain any of such information or records, with the understanding that it is not the intention that the LANDOWNER's financial and other records and information be made public.

- (b) The right of access shall not be limited to the required retention period but shall last as long as the records are retained. The LANDOWNER shall retain all records related to the LANDOWNER's performance of services funded under this AGREEMENT for at least 3 years after the date of submission of the LANDOWNER's annual reports for any designated period and payment for such expenditures by the STATE in accordance with its matching share, except that if any litigation, claim, negotiation, investigation, audit, or other action involving the records has been started before the expiration of the 3-year period, the LANDOWNER shall retain the records until completion of the action and resolution of all issues that arise from it or until the end of the regular 3-year retention period, whichever occurs later.



STATE OF HAWAII

TIME OF PERFORMANCE

SECTION 1 - EXECUTION OF AGREEMENT

- 1.1 EXECUTION OF AGREEMENT - This AGREEMENT shall be promptly executed by the STATE and the LANDOWNER upon approval by each party.
- 1.2 CERTIFICATION AND APPROVAL OF AGREEMENT - This AGREEMENT shall not be considered binding upon the STATE, unless the availability of the funds therefore has been duly certified as prescribed by Section 103-39, Hawaii Revised Statutes, as amended. Further, this AGREEMENT shall not be considered to be fully executed unless the Office of the Attorney General of the State of Hawaii has approved this AGREEMENT as to form.

SECTION 2 - TERM

- 2.1 INITIAL TERM - The initial term will be for the ten (10) years required to the complete any and all management practices for which the LANDOWNER has received cost-share assistance. Accordingly, this AGREEMENT shall commence on the date of full execution hereof and shall be in effect until July 30, 2020; subject, however to earlier termination as provided in this AGREEMENT.
- 2.2 STATE FUNDING CONDITION - This AGREEMENT is subject to continued funding of the STATE's share of the approved management budget as outlined in Attachment S2, Section 1.1. Annual funding is provided by the Conveyance Tax pursuant to Act 195, SLH 1993, Section 247-7, Hawaii Revised Statutes, whereby twenty-five percent of the amount collected from this tax shall be paid into the natural area reserve fund from which funds are dispersed to the natural area partnership and forest stewardship programs, and by way of Act 269, SLH 2000 to projects undertaken in accordance with watershed management plans. Payments are then made through the forest stewardship program to reimburse landowners for implementing approved stewardship management practices. Any balance remaining in this fund at the end of any fiscal year shall be carried forward into the fund for the next fiscal year. If in any fiscal year the STATE does not



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TIME OF PERFORMANCE

appropriate, and/or the STATE does not approve the expenditure of, funds sufficient to meet its share of the approved management budget, this AGREEMENT shall automatically terminate without penalty at the end of the last fiscal year for which any funds have been appropriated and approved, subject to Attachment S5, Section 4.1, regarding partial State funding.



STATE OF HAWAII

**CERTIFICATE OF EXEMPTION
FROM CIVIL SERVICE**

1. By Heads of Departments Delegated by the Director of the Department of Human Resources Development (“DHRD”).*

Pursuant to a delegation of the authority by the Director of DHRD, I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to § 76-16, Hawaii Revised Statutes (HRS).

(Signature)

(Date)

(Print Name)

(Print Title)

* This part of the form may be used by all department heads and the heads of attached agencies to whom the Director of DHRD expressly has delegated authority to certify § 76-16, HRS, civil service exemptions. The specific paragraph(s) of § 76-16, HRS, upon which an exemption is based should be noted in the contract file. If an exemption is based on § 76-16(b)(15), the contract must meet the following conditions:

- (1) It involves the delivery of completed work or product by or during a specific time;
- (2) There is no employee-employer relationship; and
- (3) The authorized funding for the service is from other than the "A" or personal services cost element.

NOTE: Not all attached agencies have received a delegation under § 76-16(b)(15). If in doubt, attached agencies should check with the Director of DHRD prior to certifying an exemption under § 76-16(b)(15). Authority to certify exemptions under §§ 76-16(b)(2), and 76-16(b)(12), HRS, has not been delegated; only the Director of DHRD may certify §§ 76-16(b)(2), and 76-16(b)(12) exemptions.

2. By the Director of DHRD, State of Hawaii.

I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to § 76-16, HRS.

(Signature)

(Date)

(Print Name)

(Print Title, if designee of the Director of DHRD)



STATE OF HAWAII SPECIAL CONDITIONS

SECTION 1 – INSPECTIONS

- 1.1 The STATE shall have the right to make inspections of the “Forest Stewardship project area” after prior notice to the LANDOWNER. In addition, the STATE shall be obligated to inspect the work on the “Forest Stewardship project area” not less frequently than once per year under this AGREEMENT, and more frequently in the case of a LANDOWNER default as provided in Section 4.1(d) below or when the LANDOWNER makes more than 2 reimbursement requests per year as provided in Attachment S1, Section 2.1. The STATE shall notify the LANDOWNER within a reasonable time thereafter of any perceived defaults in the LANDOWNER's implementation of the approved MANAGEMENT PLAN. The LANDOWNER hereby represents that it has authority to allow access to the “Forest Stewardship project area” by the STATE in connection with this AGREEMENT, conditional upon receipt of a liability waiver, acceptable to the LANDOWNER for all state personnel visiting the “Forest Stewardship project area”.

SECTION 2 - AMENDMENTS

- 2.1 The LANDOWNER may propose for approval by the STATE, and the STATE may approve, minor alterations to the approved MANAGEMENT PLAN, which will not have a material adverse impact on the achievement of the overall management objectives of the approved MANAGEMENT PLAN. This includes minor changes to the practice implementation schedule and/or changes in the budget/payments schedule so long as the total management activities do not subtract from or exceed the total scope of the approved MANAGEMENT PLAN and the budget/payments schedule does not exceed the total annual budget allocations up to and including the budget request for that year, and so long as the STATE has sufficient funding available to accommodate such a request.
- 2.1 The LANDOWNER may propose for approval by the STATE, and the STATE may approve, significant changes to the approved MANAGEMENT PLAN or budget to adapt to current conditions. Significant amendments to the approved MANAGEMENT PLAN



STATE OF HAWAII
SPECIAL CONDITIONS

shall include an amended budget, which will increase the overall STATE's funding share above the total amount set forth in the approved budget/payment schedule. The STATE shall make the proposed amendments available for public review prior to final approval.

- 2.3 The proposed amendments may include, without limitation, re-establishment of management priorities, increase or reduction of the specified work, increases to the budget/payments schedule, or time for performance of specified tasks, all as determined considering the natural conditions of the "Forest Stewardship project area," existing management priorities, threats, potential for decline of the natural resource during any period under consideration, availability of specialized labor or technical expertise, permitting requirements and time needed to obtain permits, and other material factors.
- 2.4 Any proposed expenditures which will increase the overall STATE's funding share above the amount set forth in the approved budget of the approved MANAGEMENT PLAN, which are proposed either as a result of additional costs required to implement the approved MANAGEMENT PLAN or as a result of amendments to the approved MANAGEMENT PLAN, must be mutually agreed upon in advance by and between the STATE and the LANDOWNER. If so agreed upon the approval of these expenditures shall be incorporated in written amendment to this AGREEMENT.
- 2.5 Economic Hardship. Notwithstanding other provisions of this AGREEMENT, in the event that the LANDOWNER determines in good faith that it is financially unable without undue economic hardship to fulfill its funding share as provided in Attachment S2, Section 1.1(b), or to carry out fully the management activities described in the approved MANAGEMENT PLAN, attached as Exhibit A to this AGREEMENT, within the budget and time period established thereby, the LANDOWNER may apply to the STATE to renegotiate the terms thereof.
- (a) Negotiation of Amendment. In such event, the STATE and the LANDOWNER shall meet and negotiate in good faith an acceptable amendment to the approved MANAGEMENT PLAN that seeks to accomplish the significant objectives of the approved MANAGEMENT PLAN reasonably within the LANDOWNER's



STATE OF HAWAII

SPECIAL CONDITIONS

financial means. The amendment may include, without limitation, re-establishment of management priorities and reduction and/or deferral of the specified work, involving significant costs, and/or extension of time for performance of specified tasks, all as determined considering the natural conditions of the "Forest Stewardship project area," existing management priorities, threats, potential for decline of the natural resource during any period under consideration, other potential sources of funding, and other material factors.

- (b) Disputes. If the STATE and the LANDOWNER are unable to agree reasonably and in good faith on a suitable amendment to the approved MANAGEMENT PLAN, the parties shall refer any such disputes to arbitration as provided in Attachment S5, the General Conditions, Section 11.
- (c) No Termination for Economic Hardship. This provision shall not be construed to allow the LANDOWNER or the STATE to terminate this AGREEMENT for economic hardship; it is rather intended to provide a mechanism for reasonable revisions to the approved MANAGEMENT PLAN for economic hardship.

SECTION 3 - PAYBACK OF STATE FUNDS

- 3.1 In the event that the LANDOWNER sells, conveys, or otherwise transfers LANDOWNER's right, title, or interest in the "Forest Stewardship project area," or any portion thereof, during the initial term of this AGREEMENT as defined in Attachment S3, Section 2.1, the LANDOWNER shall within 90 days of the sale, conveyance or transfer of title or interest in the "Forest Stewardship project area," pay back to the STATE a portion of the amount paid by the STATE to the LANDOWNER pursuant to this AGREEMENT. The amount to be paid back to the STATE shall be that fraction of the total matching funds received by the LANDOWNER under this AGREEMENT that is equal to the fraction of the "Forest Stewardship project area" that is sold, conveyed or otherwise transferred by the LANDOWNER.



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3.2 In the event that the LANDOWNER sells, conveys, or otherwise transfers LANDOWNER's right, title, or interest in the "Forest Stewardship project area," or any portion thereof, during the initial term of this AGREEMENT as defined in Attachment S3, Section 2.1, the LANDOWNER will not be required to reimburse the STATE as set forth in Attachment S5, Section 3.1 for the cost-share assistance received if the person(s) who acquire the property contractually agree to assume full responsibility for this AGREEMENT for the initial term of the AGREEMENT, including but not limited to management and financial responsibilities and penalties contained herein. See Agenda Item C-1, as amend, approved at the Board of Land and Natural Resources May 13, 2010 meeting. Nothing in this provision shall relieve the LANDOWNER of its obligations under this AGREEMENT.

SECTION 4 - TERMINATION; DEFAULT; PENALTY PAYBACK

4.1 TERMINATION OF THE AGREEMENT - It is mutually agreed that this AGREEMENT may be terminated for any one of the following reasons on the following terms:

(a) No State Funding. This AGREEMENT shall be terminated if the STATE does not approve funding for the forthcoming fiscal year of the approved MANAGEMENT PLAN. In such event, this AGREEMENT shall automatically terminate without penalty at the end of the funding period then in effect.

(b) Partial State Funding. This AGREEMENT may be terminated by the LANDOWNER if the STATE approves only a portion of its share of funding for the forthcoming fiscal year as outlined in the budget provided in the approved MANAGEMENT PLAN.

(1) In such event, the LANDOWNER shall elect, by written notice to the STATE, either:

(A) to terminate this AGREEMENT without penalty at the end of the funding period then in effect; or



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- (B) to revise the approved MANAGEMENT PLAN and budget in the LANDOWNER's reasonable discretion to accomplish significant management goals which can reasonably be funded with the amount of STATE funding actually approved.
- (c) Transfer to Government Agency. This AGREEMENT may be terminated without penalty if the "Forest Stewardship project area" is transferred or sold to a government agency committed to forest stewardship and that possesses the technical and professional skills to manage the "Forest Stewardship project area" natural resources.
- (d) LANDOWNER Default. This AGREEMENT may be terminated by the STATE upon substantial evidence that progress being made by the LANDOWNER in carrying out the approved MANAGEMENT PLAN is inadequate, incorrect, or insufficient to substantially complete on a timely basis the work called for in the approved MANAGEMENT PLAN subject to the lack of performance notification provisions set forth below.
- (1) Penalties Apply. In the event of termination for default in accordance with these provisions, the penalty payback provisions set forth below shall apply.
- (2) Lack of Performance Notification. In such event, the STATE may terminate for default, provided the STATE adheres to the following procedures for notice and opportunity to cure prior to termination:
- (A) The STATE shall first notify the LANDOWNER in writing of any perceived inadequacy, incorrectness or insufficient progress. The STATE and the LANDOWNER shall meet within two weeks thereafter, and every three months thereafter until one year following the date of the notice, and discuss in good faith the



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perceived failure and the reasons therefore and any subsequent progress or lack thereof. If the reason for the failure is a good faith inability of the LANDOWNER to carry out the terms of the MANAGEMENT PLAN for reasons beyond the LANDOWNER's reasonable control, including without limitation economic hardship as described in Attachment S5, Section 2.5 above, the STATE and the LANDOWNER shall specifically consider the need to amend the approved MANAGEMENT PLAN, including extending the time to carry out the work called for in the approved MANAGEMENT PLAN and/or revising the budget established in the approved MANAGEMENT PLAN, subject to the provisions of Attachment S1, Section 1.5 and Attachment S4, Section 2 of this AGREEMENT regarding amendments to this AGREEMENT and the approved MANAGEMENT PLAN. Following the date of the notice, the STATE shall be obligated to inspect the "Forest Stewardship project area" once each quarter after notifying the LANDOWNER, to determine the updated status of the perceived default.

- (B) Following the expiration of the one year period following notice of default given by the STATE to the LANDOWNER and failure of the LANDOWNER to remedy the default, or to make significant progress to remedy the default if by its nature the default cannot reasonably be remedied within one year, the STATE may elect to notify the LANDOWNER of its intention to terminate this AGREEMENT for default. Such notice shall be in writing, shall state that the STATE will terminate the AGREEMENT for default on a date not less than 3 months thereafter if the LANDOWNER does not remedy the default, or to make significant progress to remedy the default if by its nature the default cannot reasonably be



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remedied within 3 months, and shall specify that penalties as provided under this AGREEMENT shall apply.

- (C) If the LANDOWNER fails to remedy the default within 3 months thereafter, or to make significant progress to remedy the default if by its nature the default cannot reasonably be remedied within 3 months, the STATE may terminate this AGREEMENT effective immediately for default by written notice thereof to the LANDOWNER.
 - (D) The STATE shall be deemed to have complied with these provisions if it attempts in good faith to meet with the LANDOWNER and to inspect the “Forest Stewardship project area” as provided above, whether or not the LANDOWNER cooperates in such procedures.
- (3) All disputes regarding default and termination under this AGREEMENT, which cannot be resolved by the parties, shall be referred to arbitration as provided in Attachment S5, the General Conditions, Section 11.
 - (4) If the LANDOWNER has not fully performed its work under this AGREEMENT on expiration or termination of this AGREEMENT, the STATE may withhold the final payment to the LANDOWNER pending full completion of the LANDOWNER's work. This withheld payment shall be paid by the STATE to the LANDOWNER on final acceptance and tax clearance as provided in Attachment S2, Section 1.2 (b) and Attachment S5, Section 17.

4.2 PENALTY PAYBACK -



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(a) Payback and Penalties. In the event that the LANDOWNER defaults on this AGREEMENT as provided in Attachment S5, Section 4.1(d) above and the STATE has followed the Lack of Performance Notification procedures as outlined in Attachment S5, Section 4.1(d)(2) above, the LANDOWNER shall promptly pay to the STATE the following payback and penalty monies:

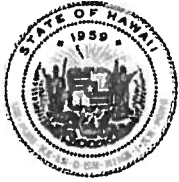
(1) Refund of State Funds - 3 Years. All funds paid from the initial date of this AGREEMENT by the STATE to the LANDOWNER in the previous 3 years (or such portion thereof as STATE shall have funded if this AGREEMENT shall have been in effect for less than 3 years) shall be returned to the STATE. In the event that this AGREEMENT shall have been in effect for more than 3 years, the LANDOWNER shall be liable to pay back State funds for the immediately preceding 3 years. In addition, the LANDOWNER shall pay to the STATE a penalty of two percent of the total of funds that are returned to the STATE.

(b) No Other Party Liable. Only the LANDOWNER receiving State funding under the FOREST STEWARDSHIP PROGRAM shall be liable to the STATE under this AGREEMENT for the payback and penalty.

(c) Disputes. The LANDOWNER shall have the right to submit any disputes to the arbitration procedure as outlined in Attachment S5, Section 11 if it feels that the imposition of payback, and/or additional penalties is unwarranted.

4.3 VIOLATIONS OF AGREEMENT - It is expressly understood and agreed that violations which are not caused by the LANDOWNER shall not constitute or give rise to a default by the LANDOWNER under this AGREEMENT and no penalty provisions shall apply to the LANDOWNER.

4.4 EFFECT OF EMINENT DOMAIN -



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- (a) Full Condemnation. If any action in eminent domain for the condemnation of the fee title of the entire “Forest Stewardship project area” described herein is filed, or if the “Forest Stewardship project area” is acquired in lieu of eminent domain for a public improvement by a public agency or person or whenever there is any such action or acquisition by the federal government or the state government or any person, instrumentality or agency acting under authority or power of the federal government or the state government, this AGREEMENT shall be deemed null and void without penalty as to the land actually being condemned or so acquired as of the date the action is filed, and upon the termination of such a proceeding, this AGREEMENT shall be null and void without penalty for all land actually taken or acquired.
- (b) Partial Condemnation. When such an action to condemn or acquire less than all the entire “Forest Stewardship project area” is filed, this AGREEMENT shall be deemed null and void without penalty as to the portion so condemned or acquired.
- (c) Adjustment of approved MANAGEMENT PLAN. The land actually taken by the means set forth above in this Section shall be removed from this AGREEMENT and the approved MANAGEMENT PLAN and budget adjusted accordingly on a reasonable basis by the STATE and the LANDOWNER.

SECTION 5 - INCORPORATION OF CHAPTER 195F, HAWAII REVISED STATUTES

- 5.1 Incorporation. The provisions of chapter 195F, Hawaii Revised Statutes, as amended, are incorporated by reference into this AGREEMENT. In the event that there is any conflict between the provisions of this AGREEMENT and the provisions of chapter 195F, Hawaii Revised Statutes, the latter shall be controlling.
- 5.2 Renumbering. In the event that chapter 195F, or any of the sections under chapter 195F, Hawaii Revised Statutes, are renumbered, any references to the chapter or sections in this AGREEMENT shall be deemed renumbered accordingly.



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EXHIBIT A

Hui Ku Maoli Ola Forest Stewardship Management Plan.



STATE OF HAWAII

CONTRACTOR'S

STANDARDS OF CONDUCT DECLARATION

For the purposes of this declaration:

"Agency" means and includes the State, the legislature and its committees, all executive departments, boards, commissions, committees, bureaus, offices; and all independent commissions and other establishments of the state government but excluding the courts.

"Controlling interest" means an interest in a business or other undertaking which is sufficient in fact to control, whether the interest is greater or less than fifty per cent (50%).

"Employee" means any nominated, appointed, or elected officer or employee of the State, including members of boards, commissions, and committees, and employees under contract to the State or of the constitutional convention, but excluding legislators, delegates to the constitutional convention, justices, and judges. (Section 84-3, HRS).

On behalf of _____, CONTRACTOR, the undersigned does declare as follows:

1. CONTRACTOR ☐ is* ☐ is not a legislator or an employee or a business in which a legislator or an employee has a controlling interest. (Section 84-15(a), HRS).
2. CONTRACTOR has not been represented or assisted personally in the matter by an individual who has been an employee of the agency awarding this Contract within the preceding two years and who participated while so employed in the matter with which the Contract is directly concerned. (Section 84-15(b), HRS).
3. CONTRACTOR has not been assisted or represented by a legislator or employee for a fee or other compensation to obtain this Contract and will not be assisted or represented by a legislator or employee for a fee or other compensation in the performance of this Contract, if the legislator or employee had been involved in the development or award of the Contract. (Section 84-14 (d), HRS).
4. CONTRACTOR has not been represented on matters related to this Contract, for a fee or other consideration by an individual who, within the past twelve (12) months, has been an agency employee, or in the case of the Legislature, a legislator, and participated while an employee or legislator on matters related to this Contract. (Sections 84-18(b) and (c), HRS).

CONTRACTOR understands that the Contract to which this document is attached is voidable on behalf of the STATE if this Contract was entered into in violation of any provision of chapter 84, Hawaii Revised Statutes, commonly referred to as the Code of Ethics, including the provisions which are the source of the declarations above. Additionally, any fee, compensation, gift, or profit received by any person as a result of a violation of the Code of Ethics may be recovered by the STATE.

* Reminder to Agency: If the "is" block is checked and if the Contract involves goods or services of a value in excess of \$10,000, the Contract must be awarded by competitive sealed bidding under section 103D-302, HRS, or a competitive sealed proposal under section 103D-303, HRS. Otherwise, the Agency may not award the Contract unless it posts a notice of its intent to award it and files a copy of the notice with the State Ethics Commission. (Section 84-15(a), HRS).

CONTRACTOR

By _____
(Signature)

Print Name _____

Print Title _____

Name of Contractor _____

Date _____



Forest Stewardship Plan
for

Matt Kapaliku Schirman dba
Hui Ku Maoli Ola Native Hawaiian Plant Specialists LLC
46-403 Ha'iku Rd.
Kane'ohe, HI 96744

Email: nativehawaiianplants@gmail.com
Phone: 285-9335 (Matt)
Fax: 1-866-342-6970

Tax Map Key number: 146-014-001 and 146-014-006
State and County Zone designation: Conservation & Agriculture II

Total Property Acreage: 63
Acres of proposed stewardship management area: 30

Prepared by: Matt Kapaliku Schirman dba
Hui Ku Maoli Ola LLC

completed: June 22, 2007 revised: June 2008

Forest Stewardship Plan Signature Page

Applicant/Professional Resource Consultant Certification: I have prepared and reviewed this forest stewardship plan and hereby certify that the recommendations contained within as well as the resource management activities implemented on the lands described shall be done so in a manner consistent with the practices recommended herein.

Prepared for:

Consultant/Applicant's Signature and Date

Consultant/Applicant's Name

State Forester's Approval: This plan meets the criteria established for Forest Stewardship Plans by Hawaii's Forest Stewardship Advisory Committee. The practices recommended in the plan are eligible for funding according to state of Hawaii Forest Stewardship Program guidelines and administrative rules.

Approved by:

State Forester's Signature and Date

State Forester's Name

III. Introduction

Property Description and Management Objective

The adjacent properties located in Ha'iku valley, in the ahupua'a of He'eia and in the district of Ko'olaupoko, O'ahu combine to cover an area of 63 acres. They reach from the right side of the valley floor, up the north side of the valley wall and extend a little over into the next valley 'Ioleka'a. The properties are bisected by He'eia Stream. Annual rainfall ranges from 90-130 inches and the entire property can be classified as mesic forest. The topography ranges from 5% grade all the way up to 90%.

Our intentions are to remove alien species and replant the areas with native plants that would have once occupied the area. In addition to the natives naturally occurring on the property, we intend on creating a safe harbor for highly endangered species. By doing this we hope to: improve/restore native terrestrial habitats for increased native fauna recruitment including endangered species like the O'ahu 'elepaio, improve/protect this watershed by minimizing erosion runoff which in turn creates a better habitat for native aquatic biota in both the freshwater and marine environments, enhance forest recreation activities by developing a trail system that enables community members to easily and safely explore the natural and cultural resources within the property and teach people through our education program proper watershed management skills for them to take back and implement with in their own communities.

Brief Land Use History and Present Conditions

Upon settling by the first Polynesians the land was cleared and used for kalo (taro) cultivation. In the latter 1800's and early 1900's the land was further cleared for pastures and sugarcane cultivation. Following that, the land was reforested with alien plants to reduce erosion. This has led to a worse case scenario today with over 80% of the valley covered with invasive alien trees. In addition, feral pigs have prevented any understory from surviving which ultimately leads to continued erosion. Prior to our acquisition of the property, small portions of the land were used as a dumping ground for construction material.

IV. Land and Resource Description

Existing Vegetation/Cover Types

Vegetation on the property is dominated (over 98%) by alien species; many of which possess invasive properties. Examples of these species include, but not limited to: *Miconia calvascens* (most of which has already been eradicated with only a few seedlings germinating periodically), rose myrtle (*Melastomaceae*), *Clidemia hirta*, bingabinga (*Macaranga mappia*), Java plum (*Syzigium cumini*), rose apple (*Syzygium jambos*), Octopus tree (*Schefflera actinophylla*), strawberry guava (*Psidium cattelianum*), guava (*Psidium guajava*), warabi fern, mango (*Mangifera indica*), gunpowder tree (*Trema orientalis*), banyan (*Ficus microcarpa*), fiddlewood (*Citharexylum caudatum*), job's tear (*Coix lacryma-jobi*), and various types of ginger and heliconia. Native species are very few and far between. However, scattered individuals of the following are present: 'ohi'a lehua (*Metrosideros polymorpha*), mamaki (*Pipterus albidus*), koa (*Acacia koa*), akia kuahiwi (*Wikstroemia oahuense*) and *Carex wahuense*.

Existing forest health and function including disease problems and fire threat

Currently the health of the forest is very poor from an ecological standpoint. The domination of alien species (both plant and animal) has a detrimental affect on the landscape affecting everything from the quality of the stream water to increased erosion rates on the ridge side due to monotypic plant communities. Plant diversity is low; mostly comprised of about five different plants. Two of these plant, java plum (*Syzigium cumini*) and

strawberry guava (*Psidium cattelium*), provide food for alien pigs. In turn the pigs act as vehicles to disperse the alien seeds. Perhaps the most insidious of these species is the octopus tree (*Schefflera actinophylla*). This plant has virtually spread throughout windward O'ahu dominating much of its lower mesic forest. Compounding the problem are alien bulbuls (*Pycnonotus spp.*) which feed on their numerous fruit and disperse the seeds over wide ranges. The canopy along the stream banks and on the valley floor is mainly comprised of java plum (*Syzygium cumini*), octopus tree (*Schefflera actinophylla*), rose apple (*Syzygium jambos*) and bingabinga (*Macaranga mappia*). Hardly any species of groundcover exist. Pigs have been successful at leaving exposed dirt and mud with numerous wallows. The upper slope leading to the valley wall is covered with a monotypic stand of rose myrtle (*Melastomaceae spp.*). These plants have a dense cover and shallow root systems. The growth habits of this myrtle, in combination with the position of the plants on the steep slope, have led to several large landslides resulting in open spans of denuded forest. The lack of diversity also reduces the amount of ground water which feeds the stream. Plants like java plum (*Syzygium cumini*) and job's tear (*Coix lacryma-jobi*) have high rates of evapotranspiration. These plants consume large amounts of groundwater and release it back into the atmosphere.

Recently the numerous rose apple (*Syzygium jambos*) trees have been under attack by leaf rust (*Puccinia psidii*) that causes the plant to defoliate. This creates a big threat to other plants related to rose apple (*Syzygium jambos*). Such plants include the common mountain apple (*Syzygium malaccense*) which is beginning to show signs of the same disease and 'ohia lehua (*Metrosideros polymorpha*) which would be detrimental to the already greatly reduced populations.

Soil condition, general slope and aspect

Soil condition is brown and rich in organic material on the valley floor. They consist of Lolekaa Silty Clay; characterized by well drained soils on the windward slopes of O'ahu. Also present along the stream are Hanalei Silty Clay soils. These are typically poor drained soils found on O'ahu and Kaua'i. Soil tests have shown a well balanced Ph and good to excellent readings for nutrient levels. In the denuded areas the soil is red; indicative of higher iron content. In some places erosion has exposed the subsoil which has little or no organic composition. Most of the work area will take place on the flatter sections of land with a general grade of 5-40 percent.

Water resources and their condition

Haiku stream bisects the property lengthwise. The condition of the stream is healthy with only a few spots of steep eroded banks. The stream bed is lined with many large stones allowing for good oxygenation. There are also a few springs which emerge at the bottom of the valley slope which feed into the stream.

Timber Resources

There are no significant timber resources on the property

Wetland Resources

Besides the stream there are no other natural wetland resources on the property. However, the stream still attracts native wildlife such as 'o'opu (*Eleotrios sandwicensis*), hihiwai (*Neritina granosa*) and 'opae (*Atyoida bisulcata*). This alone is reason enough to improve the health of the watershed enabling greater numbers of native stream fauna to survive.

Significant Historic and Cultural Resources

No significant sites were found during the survey. However, evidence of agricultural terraces and human activity are found throughout the lower elevations. See attached archaeological survey for detailed historic and cultural resources.

Existing Wildlife

Existing wildlife is primarily made up of alien avifauna like red-vented bulbuls (*Pycnonotus cafer*), cattle egrets (*Bubulcus ibis*), mynah birds (*Acridotheres tristis tristis*), chickens (*Gallus spp.*), zebra doves (*Geopelia striata*), shama thrushes (*Copsychus malabaricus*) and Japanese white-eyes (*Zosterope japonicus japonicus*). On the brighter side, an endangered O'ahu 'elepaio (*Chasiempis sandwichensis ibidis*) and an 'amakihi (*Hemignathus virens*) further up near the ridge were spotted. In addition to the previous forest birds, several 'auku'u (*Nycticorax nycticorax*) are regularly observed fishing in the stream. The only land animals, besides birds, are feral pigs, rats, mice, cats and mongoose that migrate throughout the valley. The stream has the greatest amount and diversity of native wildlife. The following were noticed: 'o'opu naniha (*Stenogobius hawaiiensis*), 'o'opu nakea (*Awaous guamensis*), 'o'opu akupa (*Eleotrios sandwichensis*), 'opae kala'ole (*Atyoida bisulcata*), 'opae 'oeha'a (*Macrobrachium grandimanus*), hihiwai (*Neritina granosa*) in addition to the usual alien species like Tahitian prawns (*Macrobrachium lar*), guppies (*Poecilia reticulata*), swordtails (*Xiphophorus helleri*), crayfish (*Procambarus clarkia*), water snails and bi-valves.

Existing Endangered Species

The only endangered species documented was the O'ahu 'Elepaio.

Existing recreational and aesthetic value

Although there are no existing defined trails the area is still very nice to hike through. From far, the surrounding cliffs, hanging valleys, and picturesque setting provides for a spectacular view. There are a few ponds that many locals in the community visit on a regular basis.

V. Management Objectives and Practices

The ultimate management objective is for native plant species restoration and habitat improvement. We intend to complete a top to bottom restoration by installing ground covers, shrubs and trees. A large diversity of both flowering plants and ferns will be out-planted to offer habitat for a large diversity of species as well as the increased educational value of the trail system. Upon completion, this project will directly increase the number of native plants within the valley. It will also indirectly have a positive affect on the health of the watershed, improve the habitat for native wildlife, and provide a more aesthetically pleasing view for community use. It is the intention of Hui Ku Maoli Ola and the landowner (Kamehameha Schools) to manage this area for the community to as close to the condition created under the FSP project beyond the FSP management term and contract agreement.

Site Prep

One of the first areas to be restored will be along the stream banks; no heavy machinery will be used to clear this area in order to ensure the least impact on bank stability. All work will be done using chainsaws and small hand tools. A percentage of the canopy trees will remain to offer shade and prevent the ground from drying. The amount of trees left behind will be determined by the species of plants we intend on out-planting in the area. Once the plants are established, in subsequent years, the remaining alien canopy will be removed.

Once the riparian zone is complete, the restoration will move up across the property in 2 to 6 acre increments beginning in the SW corner of the property by the current warehouse location and running along the stream bank corridor and then toward the valley wall (see attached map). Alien trees (excluding those of Polynesian Introduction) will be cut, chipped and composted on site. The logs that are too large to be chipped will be utilized as trail borders and for bank stabilization. Some alien trees will remain to provide some canopy cover in order to prevent newly planted plants from drying out due to wind and sun exposure and also to limit the

encroachment of alien grasses. Compacted soils will be tilled as necessary to encourage the proper establishment of newly planted seedlings following guidelines set forth by our NRCS soil conservation plan. All BMPs (Best Management Practices) will be followed according to both EPA and State standards.

Initially this process will start with six acres of preparation and the next two following years will be four acres. The first few years have a larger number of acres covered because there is a limited amount of maintenance on plantings. Once each area is planted, beginning in year two, the acreage is reduced. The total area of preparation is lessened because the secondary succession of reforestation begins. A second round of out planting, generally with an increase in shrubbery and a large increase in ground cover species, occurs. By the time the project reaches year four, the total area of preparation is reduced to two acres per year for the remainder of the project. It was further reduced due to the on going maintenance on all the sites, the continued increase in ground cover plantings and the difficulty in removing the remaining alien canopy species in the established plantings. The acreage subject to reforestation activities is approximately 20 acres of the FSP project area, the remaining mauka areas will be protected through fencing to decrease the re-introduction of non-natives species by feral ungulates (see related practices below).

The budget asks for the high threshold amount for site preparation due to the fact that tree removal will have to be done manually. As there is little available access for large machinery, such as excavators, to enter the property, project activities requiring the use of such equipment will focus along the existing roadway whenever possible to reduce overall project cost. All to most materials associated with site preparation will have to be hand carried to the site. We feel these costs are justified by the inaccessibility of the project site. I base these costs on recent tree removal we had done on this property. The lowest quote out of five companies charged us \$2700 per tree to drop. Over an acre, not including the "special areas" there is upwards of fifteen trees in this range with many others just smaller.

Weed Control, Mulching and Maintenance

All chipped material will be composted to kill off any disease and alien plant seeds. The composted material will be utilized as mulch to control any weed seeds in the ground and to help prevent surface soil runoff. Once an area (1/4 acre increments) is prepped and mulched we will begin planting and maintain the area by either hand pulling any new weeds that may germinate or by using the proper herbicide spray. In the riparian zones, Aquamaster or other approved aquatic herbicide will be used and all other areas will use Roundup or equal.

A significant portion of each year's budget will be dedicated to site maintenance. Many projects fail due to insufficient maintenance strategies and funds. The survival of the owners and FSP's investment relies entirely on a well designed approach to maintenance. The basic need of any strategy is man power to be able to observe any threats, address the threats and implement the solution. Prevention is the best approach to ensure a long and successful project. Plants are expected to have a 90% survival rate; naturally all dying plants will be replaced to ensure proper coverage. Hui Ku Maoli Ola plans to monitor and document seedling survival based on planting methods to support site preparation and weed control effects.

Weed control and maintenance demands the threshold value from the States allowable cost share limits. Maintenance can't be stressed enough in this type of reforestation. A great deal of labor needs to go into monitoring these new plantings to ensure they survive. Not only is it difficult to establish some of these species but the environment of Haiku Valley is ideal for weed growth. Enough rain occurs weekly to ensure a continuous year of growing. Any down time due to lack of funds will ensure a more expensive and potentially devastating result. Preventative maintenance in this situation is definitely the safe route to choose. Much of the maintenance expense will be picked up by volunteers and full time staff. However, as much as possible we would prefer to limit the maintenance of certain out-plantings to staff since many of the volunteers we deal with don't know the plants. In many situations plants are pulled or at a minimum are trampled. Volunteers will be used to perform many of the other duties untaken in the FSP project including planting and some weeding efforts.

Seedling Acquisition

Ideally all plant propagules, whether cuttings or seeds, would be obtained from the property itself. Due to the lack of native plant diversity we will expand the gathering site to include the neighboring Ko'olau valleys and ridges. We currently have a large stock of native plants from this region and will use our on-site six acre nursery to grow out the seedlings for out planting. We will also acquire seeds of various endangered plants in the region from Ane Bakutis who works for the State's genetic safety net program. This will offer a safe location for the endangered species to thrive and reproduce naturally. Should the need arise; all State permits associated with gathering plant material will be acquired prior to doing so.

The budget requests on the lower side of the States allowable cost share rate for seedling acquisition. Prices of native plants range from \$4.00 to \$20 a species for the pot sizes requested in the budget, depending on the species availability and difficulty in propagating.

Planting

Most plants will be grown in pots between 4", dibble tube and 1 gallon size. This makes for easy transportation to planting site and produces less plant stress during out planting. All holes will be dug using a 4" or 8" wide auger bit and plants will be positioned within the hole so that it will neither be buried too deep nor too shallow. Careful observation will be taken not to allow glazing of holes to occur during digging. Organic amendments will be added to each hole to help increase the plants' chances of survival. Plants will be clearly marked with flagging tape for identification and maintenance purposes. All out plantings of endangered species will be done in accordance to the State botanists' instructions.

Plant spacing depends on a variety of factors: species, form, terrain, soil type and canopy. With the exception of the first and second year, a total of ten thousand plants, (including trees, shrubs, and ground covers), will be planted over the prepared areas. The tree and shrub species will be planted in all newly prepared areas and ground covers will be planted in areas that have already established the new canopy cover. In addition, all dead plants will be replaced in critical areas, such as, heavily eroded banks.

The planned budget requests funds on the lower side of the States threshold for allowable rates. The primary planting consists of evenly spaced canopy species mixed with larger shrubs which are spread out significantly. In subsequent years, the secondary out planting of the plants will be budgeted under special areas and ground covers.

Fencing and Other Tree Protection

Some planting areas will consist of native ferns like palapalai (*Microlepia strigosa*), ho'io (*Diplazium arnottii*), laukahi (*Elaphoglossum spp.*), kikawaio (*Christella spp.*) and hapu'u (*Cibotium glaucum*) mixed in with a few native lobelias. These plants and others planned for outplanting carry a high risk of damage caused by feral pigs, which are present throughout the watershed. As a result of this, we intend on fencing these areas in. Approximately 6000 feet of woven pig wire with T post fencing will be installed using FSP funding and the fenceline will follow the FSP project boundary (see attached map). Additional fence needed for some of the mauka fenceline boundary (approximately 1,000 to 2,000ft) will be supported through other funding sources, including Kamehameha Schools grants. Fencing combined with hunting will greatly reduce the possibilities of severe pig damage. Hunting will be done by, but not limited to, Matthew Schirman, Hi'ilei Kawelo, Gabby Kawelo and open to community hunters during select periods.

In addition to fencing, pigs, rats, mice, cats and mongoose will be trapped and slowly eradicated. Rodenticides, concealed in bait boxes, will be used to control the rat and mouse population. Cats and mongoose will be trapped using typical small animal traps and will be delivered to the human society for disposal.

Irrigation

PVC will be used to run water to the designated planting sites. Once water is on location, poly-tubing with drip emitters will be used to temporarily irrigate out-planting sites until they become established. Once fully established at the end of the project, the tubing will be removed. The water will be supplied by one of the springs on the property and pumped using a gas powered Honda pump.

The budget requests the lower end of the allowable State share. The estimate is based on irrigation supplies purchased for similar projects over the past two years.

Fertilization and Soil Amendments

Small amounts of granular, slow release fertilizer will be placed in each hole to aid in the establishment of the out planted plants. Plants will be fertilized throughout the duration of the project to ensure proper and quick development. Quantities of fertilizer are determined by plant species and location of planting. Over the years we have determined through experimentation which native species require more or less fertilization. Too much fertilization in certain species will result in poor development and a lower pest tolerance. Other species thrive and perform significantly better with the aid of added nutrients. Less fertilizer will be used along stream banks and waterways in order to prevent excess nutrients from entering the waterway.

The budget requests on the lower threshold of the States allowable cost share rate. Costs are based on current prices for organic and synthetic fertilizers applied at specified rates per acre.

Intensive Re-vegetation and Special Areas

Due to the heavy density of extremely large trees, intensive re-vegetation will occur over “special areas” for much of the project site. Alien trees will be removed to open spaces for planting ground-covers, shrubs and trees. Clear cutting is not the chosen strategy as this opens up too much space for primary successive species. Thinning the current species will allow filtered light through to reach newly planted native canopy species. Following good growth of the new plantings, more alien trees will be removed, followed by intensive re-vegetation of ground covers and shrubs. Over the life of the project, the remaining alien trees in the planting sites will be removed resulting in a 100 % native environment.

As phase one of planting progresses and plants grow, it becomes more cumbersome to remove the remaining large canopy trees without causing damage. Rather than simply clear cutting the trees, the tree needs to be climbed and limbed with care. These heavily re-vegetated areas are distinguished from others based on the density and sheer volume of weedy material to be removed. It is also based on a larger quantity of plants being put in the ground in areas where erosion is an issue.

Included in these intensive re-vegetated sites are sites that require special consideration. Within each year, there are locations that are heavily eroded and need to be planted either more densely or combined planting with geotextile fabrics and other Best Management Practices (BMP). These fabrics include biodegradable jute matting that slows down sheet flow run off, helps bind sediments to the matting and reduces soil loss. The mats are constructed of woven jute; holes will be cut in the mat to plant. By the time the jute decomposes, the plants will be heavily established controlling erosion on their own. Coir logs will be used to control erosion in locations that exhibit large amounts of soil loss. These logs are made from coconut husks and are installed in areas of high flow water. Other BMPs include the installation of rock walls and in extreme conditions gabions to control water from chewing into the banks of waterways.

Generally speaking, there are many areas throughout the property that could use these BMPs. Every year we have budgeted for at least one major project. Areas include large eroded red spots on the mountainside, steep drainage channels, steep eroded stream banks and denuded areas where sheet flows of rain water have

removed significant amounts of soil. The trails that will be constructed will pass along side of these areas in an effort to demonstrate proper erosion control practices and BMPs. Hui Ku Maoli Ola intends on documenting all intensive revegetation sites with a before, during, and after pictures with the associated implemented management activities to show further success and provide for outreach and education to the community and other parties interested in this type of restoration. This documentation will be provided to the FSP to support future projects of this type.

Trail construction

There is enough space in the under story of the alien trees to suffice as a walking trail. However, as the areas are re-vegetated 2-4 ft. walking paths will be constructed to safely reach out planting sites for community enjoyment and to avoid stepping on the newly planted plants during the maintenance period. Trails will be designed to include key aesthetic attributes to the property and wherever possible will not exceed a ten percent grade. Steps and/or rails will be constructed in areas that are steep. As trails are created, more plants will be installed along the borders to reduce erosion, including in the mauka fenced area. At the culmination of the project, over a mile of trail system will be completed. Members of the community will be allowed to access these trails for recreation, education and maintenance. Groups will be led on informational/educational tours by qualified individuals trained on Hawaii's environment and culture by Matthew Schirman or Rick Barboza.

The budget requests the lower threshold of the States allowable costs for building the trail system. For the most part the trail building should be relatively basic. Many trails exist throughout the property but they need to be widened or improved /formalized. The last couple of thousand feet of trail system has a small rise in cost due to the increased slope which requires more terracing for steps and railings.

Non-commercial thinning

On the project sites and remaining acreage of the property, select trees will be spared based on form or interest. Desirable trees will be selected and cull trees will be removed to enhance the form of the wanted trees. Trees of particular interest will potentially have seating areas or viewing areas around them. Thinning is not exclusive to areas designated for significant alien tree removal. Rather, it serves to accentuate quality trees throughout the entire property limits. Ultimately, trees of extraordinary characteristics will be attached to the formal trail system for community use.

Ground Cover Establishment and Maintenance

The key to lower suspended solids in Hawaii's surface run-off is to reduce the amount of barren exposed soils. Following initial plant establishment, a second round of planting will occur. This phase includes an extensive plant instillation in areas that require thick and full ground cover. With the pigs controlled, establishment of ground covers should be successful. As in any other situation, maintenance is of the utmost priority to ensure survivability of the plants. Many projects fail due to the lack of proper maintenance; it is our goal to allocate a significant amount of resources to the care of the project in order to ensure survivability.

The project budget requests on the lower side of the States allowable cost for establishing ground covers. The use of an auger will greatly improve the ease of planting which will aid in planting the large number of plants going into the ground. Planting costs will rise with the difficulty of planting based on slopes and other undesirable challenges.

The budget asks for the high end of the threshold for ground cover maintenance due to the importance of ensuring the success of the project. The entire valley and surrounding environments are continuously inundating the site with alien weed seeds. Without constant attention and daily/weekly weeding, the invasives will with out a doubt win. However, by allowing full time people on site, we will greatly increase

our chances of beating out the weeds. The maintenance cost will inevitably be higher for such a large area which is why more funds are requested under the weed control/mulch practice component.

VI. Practice and Implementation Schedule

Year One Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Management Plan	1 plan	\$6400	\$6400	\$1600	\$4800
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Cont./Mulch	2 acres	\$600	\$1200	\$600	\$600
Seedling Acqui.	6000	\$4	\$24000	\$12000	\$12000
Ground Cover Est.	2 acres	\$2000	\$4000	\$2000	\$2000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Fencing	4000 feet	\$5	\$20000	\$10000	\$10000
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	10000 feet	\$1.50	\$15000	\$7500	\$7500
Special Areas*			\$40000	\$20000	\$20000
Trail Construction	1000 feet	\$5	\$5000	\$2500	\$2500
Thinning	2 acres	\$200	\$400	\$200	\$200
Totals			\$125700	\$61900	\$63800

*Special Areas practices include: large tree removal (Chinese banyan, Java Plum, Ear pod, Mango,) installing jute matting in areas with a slope greater than 2:1. Removing the trees requires a specialized arborist and is considerably expensive due to tree location, size and difficulty. Coir logs will be installed in areas that have high surface runoff.

Year 2 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Cont./Maint.	4 acres	\$600	\$2400	\$1200	\$1200
Seedling Acqui.	6000	\$4	\$24000	\$12000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Ground Cover Est.	2 acres	\$2000	\$4000	\$2000	\$2000
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Fencing	2000 feet	\$5	\$10000	\$5000	\$5000
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	8000 feet	\$1.50	\$12000	\$6000	\$6000
Special Areas*			\$40000	\$20000	\$20000
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Thinning	2 acres	\$200	\$400	\$200	\$200
Totals			\$110000	\$55650	\$54350

*Special Areas practice includes: further large tree removal (Chinese banyan, Java Plum, Ear pod, Mango,) installing jute matting in areas with a slope greater than 2:1. Removing the trees requires a specialized arborist and is considerably expensive due to tree location, size and difficulty.

Year 3 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	6 acres	\$600	\$3600	\$1800	\$1800
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilization	2 acres	\$500	\$1000	\$500	\$500
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Special Areas*			\$40000	\$20000	\$20000
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Non-Commercial thinning	2 acres	\$200	\$400	\$200	\$200
Ground Cover Maint.	6 acres	\$600	\$3600	\$1800	\$1800
Special Area: Streambank Restore**	2 acres	\$10000	\$20000	\$10000	\$10000
Ground Cover Establish.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$128800	\$67550	\$61250

*Special Areas practices include: removal of thick guinea grass, California grass, Jobs tears, and Hau. Erosion mating and coir logs will be installed in areas to prevent soil erosion.

**Special Area: Streambank Restoration: includes stabilization material, higher density planting to control erosion, specific riparian species, and instream improvement.

Year 4 Plan

Practice Component	Units	Unit Cost	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilization	2 acres	\$500	\$1000	\$500	\$500
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Streambank Restore	2 acres	\$10000	\$20000	\$10000	\$10000
Ground Cover Establish	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$89800	\$48550	\$41250

**Special Area: Streambank Restoration: includes stabilization material, higher density planting to control erosion, specific riparian species, and instream improvement.

Year 5 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

Year 6 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

Year 7 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicant Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

Year 8 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicants Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

Year 9 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicants Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

Year 10 Plan

Practice Component	Units	Cost Per Unit	Total Cost	Applicants Share	FSP Share
Site Preparation	2 acres	\$2000	\$4000	\$2000	\$2000
Weed Control/Maint	8 acres	\$600	\$4800	\$2400	\$2400
Seedling Acquisition	6000	\$5	\$30000	\$18000	\$12000
Planting	2 acres	\$1000	\$2000	\$1000	\$1000
Other Tree Protection	6 acres	\$450	\$2700	\$2000	\$700
Fertilizer	2 acres	\$500	\$1000	\$500	\$500
Trail Construction	1500 feet	\$5	\$7500	\$3750	\$3750
Irrigation	6000 feet	\$1.50	\$9000	\$4500	\$4500
Ground Cover Maint.	8 acres	\$600	\$4800	\$2400	\$2400
Ground Cover Estab.	2 acres	\$2000	\$4000	\$2000	\$2000
Total			\$69800	\$38550	\$31250

VII. Budget Summary

All required matching funds will come from a combination of smaller private donations, volunteers and staff time spent on implementation of the project, as well as an annual Kamehameha Schools program contribution. Kamehameha Schools funds approximately \$108,000 a year for our education programs; of this \$42,000 is directly pertinent to this grant and the scope of services proposed. Over the years we have gained working relationships with many of Hawaii's schools, community groups and non-profits. On average, over four hundred volunteer hours are required monthly. All tools, equipment and machinery will be used as additional match.

Year	Total Budget	Applicant Share	FSP Share	Other Funding Source
FY11	\$125700	\$61900	\$63800	Kamehameha Schools, volunteers, private donations,
FY12	\$110000	\$55650	\$54350	Kamehameha Schools, volunteers, private donations
FY13	\$128800	\$67550	\$61250	Kamehameha Schools, volunteers, private donations
FY14	\$89800	\$48550	\$41250	Kamehameha Schools, volunteers, private donations,
FY15	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations
FY16	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations
FY17	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations
FY18	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations
FY19	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations
FY20	\$69800	\$38550	\$31250	Kamehameha Schools, volunteers, private donations

VIII. Maps

See attached

IX. Monitoring Activities

All work site areas will be monitored on a regular basis to address the mortality rate, watering needs, and pest quantities of out planted plants as well as the recruitment amount of weeds. Special project areas with intensive re-vegetation will be monitored by the project manager to ensure that the practice was successful. Also of note, the project manager shall take note of any native flora or fauna recruitment throughout the life of the project. Documentation of the success of the project will be included in annual reports to the FSP or along with any reimbursement request under this program. Following the completion of the 10 year management plan, Hui Ku Maoli Ola will provide an overall report of project success or failures as applicable and recommendations for future projects of this intensity.

Trees

‘Ohi’a lehua (*Metrosideros polymorpha*, *M. tremuloides*, *M. macrocarpa*)

Koa (*Acacia koa*)

Papala (*Charpentiera ovata*)

Papala kepau (*Pisonia umbellifera*)

Loulu (*Pritchardia martii*)

Lonomea (*Sapindus oahuensis*)

Hala (*Pandanus tectorius*)

Alahe’e (*Psydrax odorata*)

Lama (*Diospyros sandwicense*)

Hao (*Rauvolfia sandwicensis*)

Holei (*Ochrosia compta*)

Halapepe (*Pleomele halapepe*)

Olopua (*Nestegis sandwicensis*)

Hame (*Antidesma* sp.)

‘Iliahi (*Santalum freycinatum*, *S. ellipticum*)

Ahakea (*Bobea eliator*)

Keahi (*Nesoluma polynesicum*)

Kolea (*Myrsine lessertiana*)

Shrubs

Mamaki (*Pipterus albidus*)

Akia Kuahiwi (*Wikstroemia oahuense*)

Haha (*Cyanea* spp.)

Akoko (*Chamacyse* spp.)

Maile (*Alyxia oliviformis*)

‘Ulei (*Osteomeles anthylidifolia*)

Pualoalo (*Hibiscus arnottianus*)

Koki’o ‘ula (*Hibiscus kokio*)

Abutilon sandwicense

Manono (*Hedyotis terminalis*)

Na’u (*Gardenia brighamii*)

Naupaka Kuahiwi (*Scaevola gaudichaudiana*, *S. gaudichaudii*)

A'ali'i (*Dodonea viscosa*)

Hapu'u (*Cibotium* spp.)

Kolokolokuahiwi (*Lysmachia hillebrandii*)

Ground Covers/Vines

'Uki'uki (*Dianella sandwicensis*)

Carex wahuensis, *C. meyenii*

'Ilie'e (*Plumbago zeylanica*)

'Awikiwiki (*Canavalia galeata*)

Bonamia menziesii

Palapalai Fern (*Microlepia strigosa*)

Kupukupu Fern (*Nephrolepis cordifolia*, *N. exaltata*)

Laukahi Fern

Ho'io Fern

Kawelu (*Eragrostis variabilis*)

Pili (*Heteropogon contortus*)

Plants will be supplied by Hui Ku Maoli Ola Native Hawaiian Plant Nursery.

Organizations Involved in the Project

The following are organizations that we have partnered with and all express interest and excitement about creating this nature/educational resource. The project is purely for Hawaii's community, members of it and its environmental health. Organizations and individuals that we intend to work with to help achieve success in our restoration effort include but are not limited to:

Kamehameha School (various classes and clubs)

Hui Malama o Ke Kai

Paepae o He'eia

Ahahui Malama I Ka Lokahi

Anuenue Charter School

Halau Ku Mana Charter School

Ke Kula o Samuel M. Kamakau Charter School

Hakipu'u Learning Center Charter School

Various Public Schools from the Windward Side

Ane Bakutis- Genetic Safety Net Program

Various Hula Halau

Various Classes from the University of Hawaii at Manoa (Botany, Zoology, Biology, -Hawaiian Studies)

Kailua Outdoor Circle

Garden Club of Hawaii

Rick Guinther of AECOS

Ko'olau Mountain Watershed Program

Hui Ku Maoli Ola Forest Stewardship Project Area, Implementation Plan

Management Plan implementation to begin in the SW corner of the project area. Approximate acreage and location



Legend

Hui Ku Maoli Ola
FSP project area

2 Acre Sections

Existing Roads

Streams

Hui Ku Maoli Ola
TMK parcels

Excluded from FSP
project area

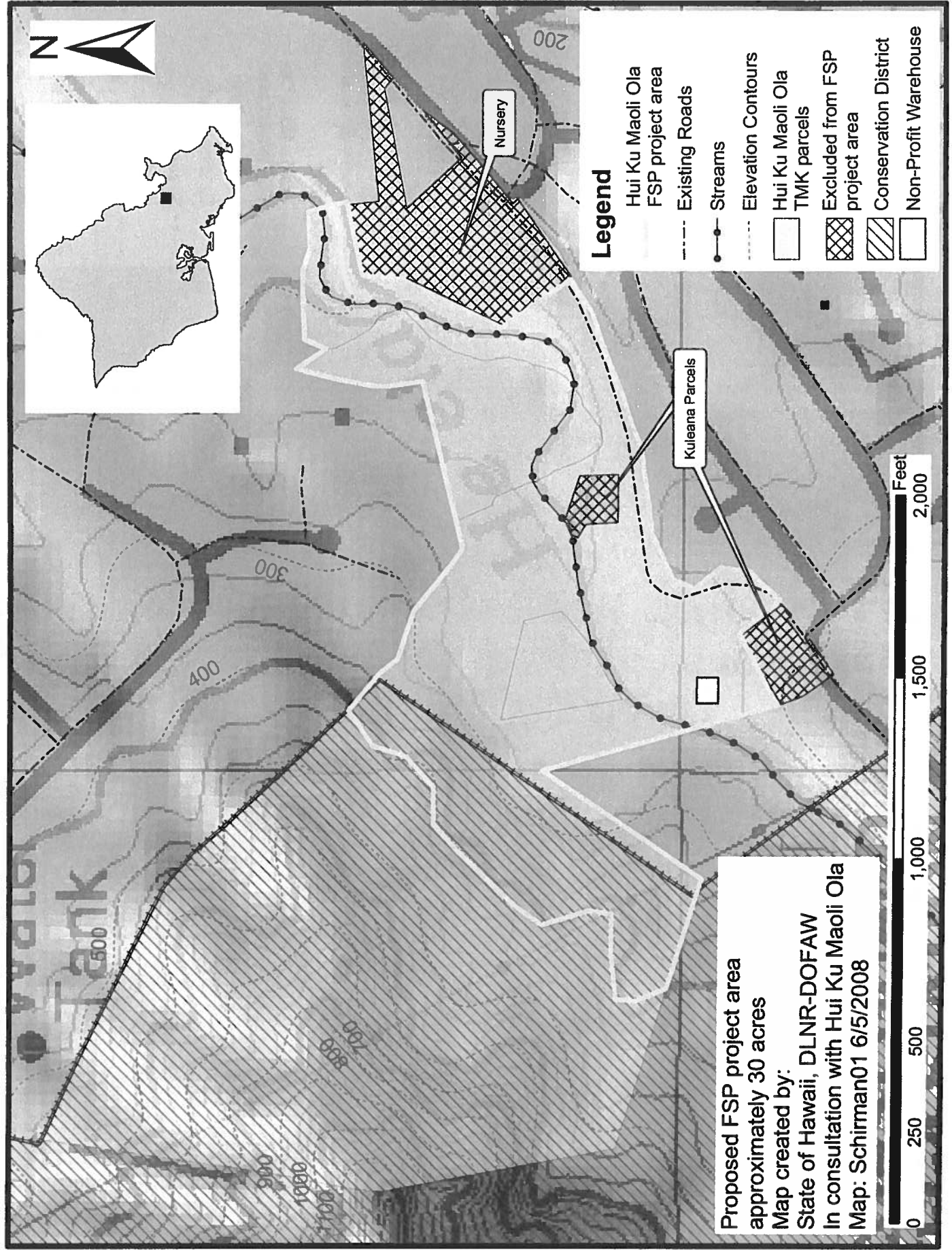
Non-Profit Warehouse

Restoration Start
Year 1

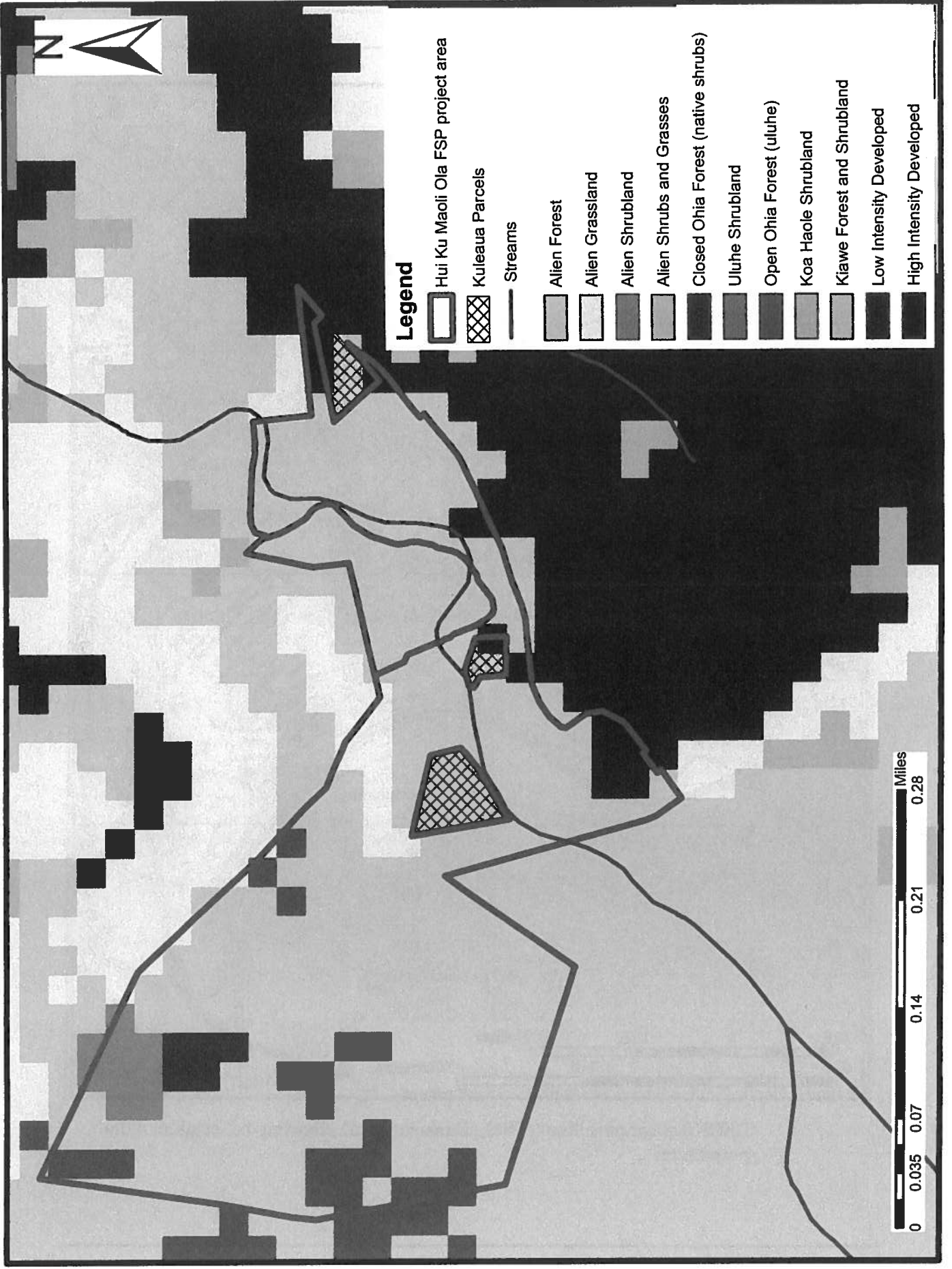
Implementation Plan
approximately 30 acres
Map created by:
State of Hawaii, DLNR-DOFAW
In consultation with Hui Ku Maoli Ola
Map: Schirman02 6/5/2008

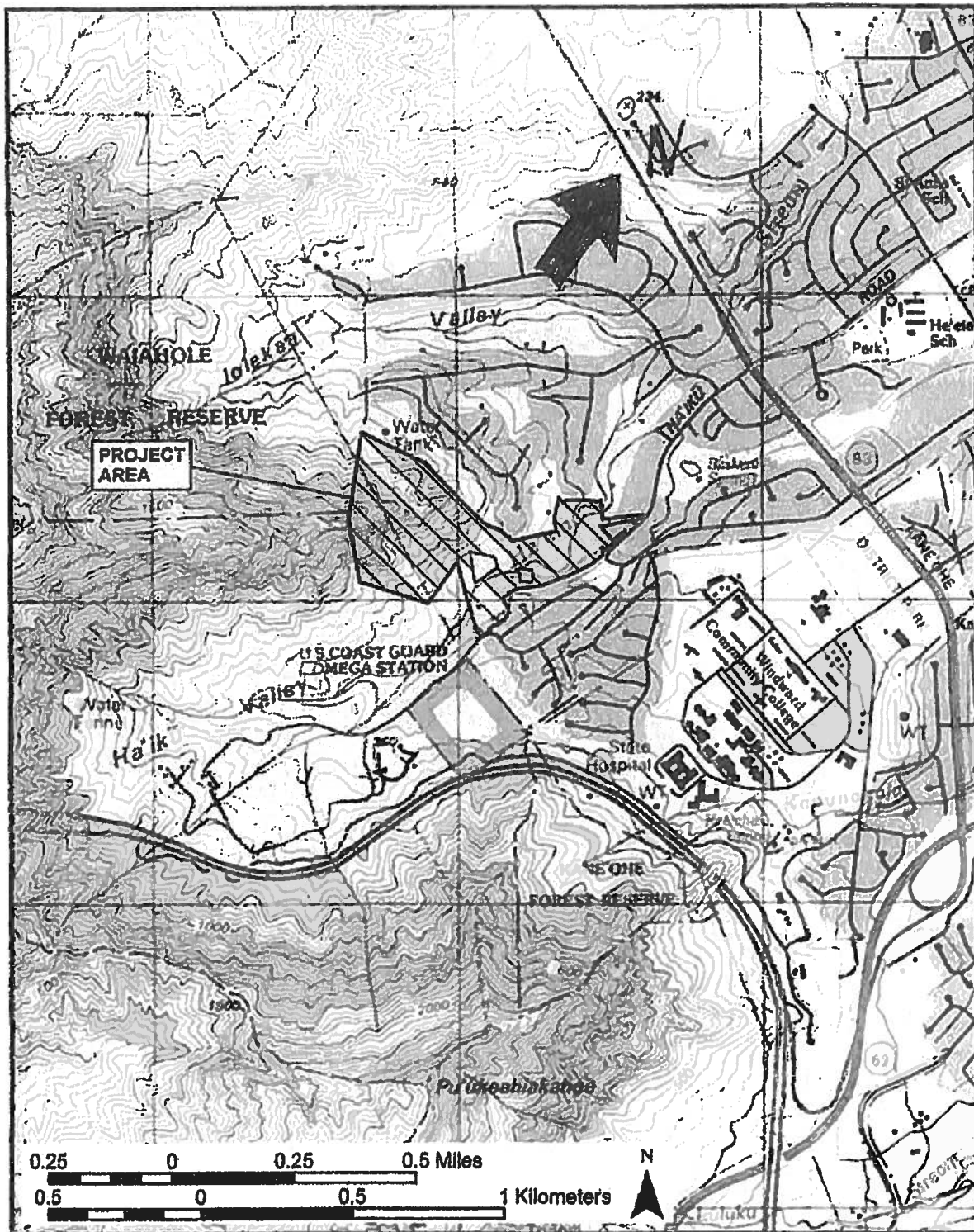


Hui Ku Maoli Ola Forest Stewardship Project Area

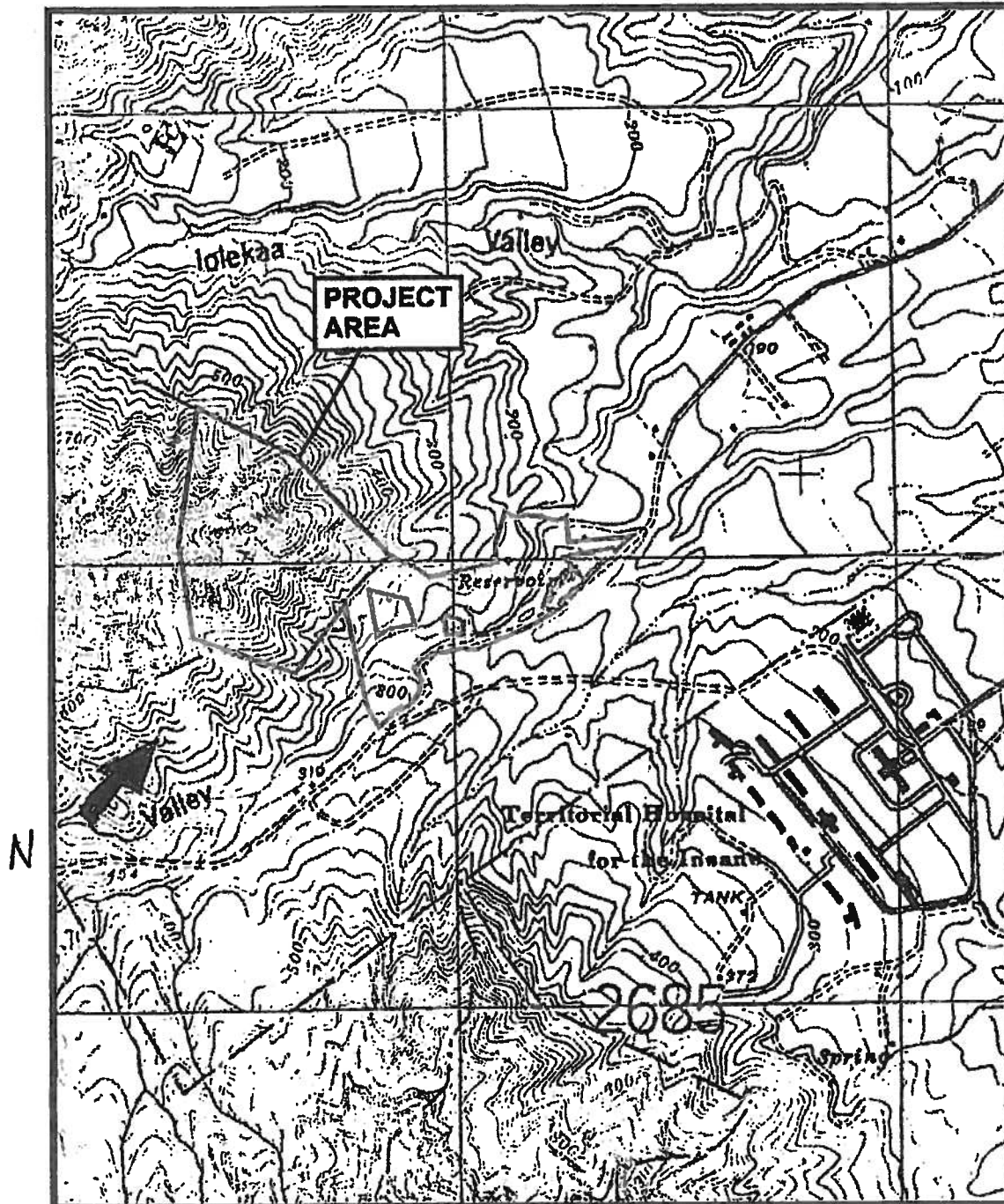


Hui Ku Maoli Ola Forest Stewardship Program Project, Vegetation Cover





USGS Topographic Map (1998), Kaneohe Quad., showing the location of the project area.



1943 USGS Topographic map, showing the location of the project area.

Key:  - Revegetation zones

 - cliff/conservation zone

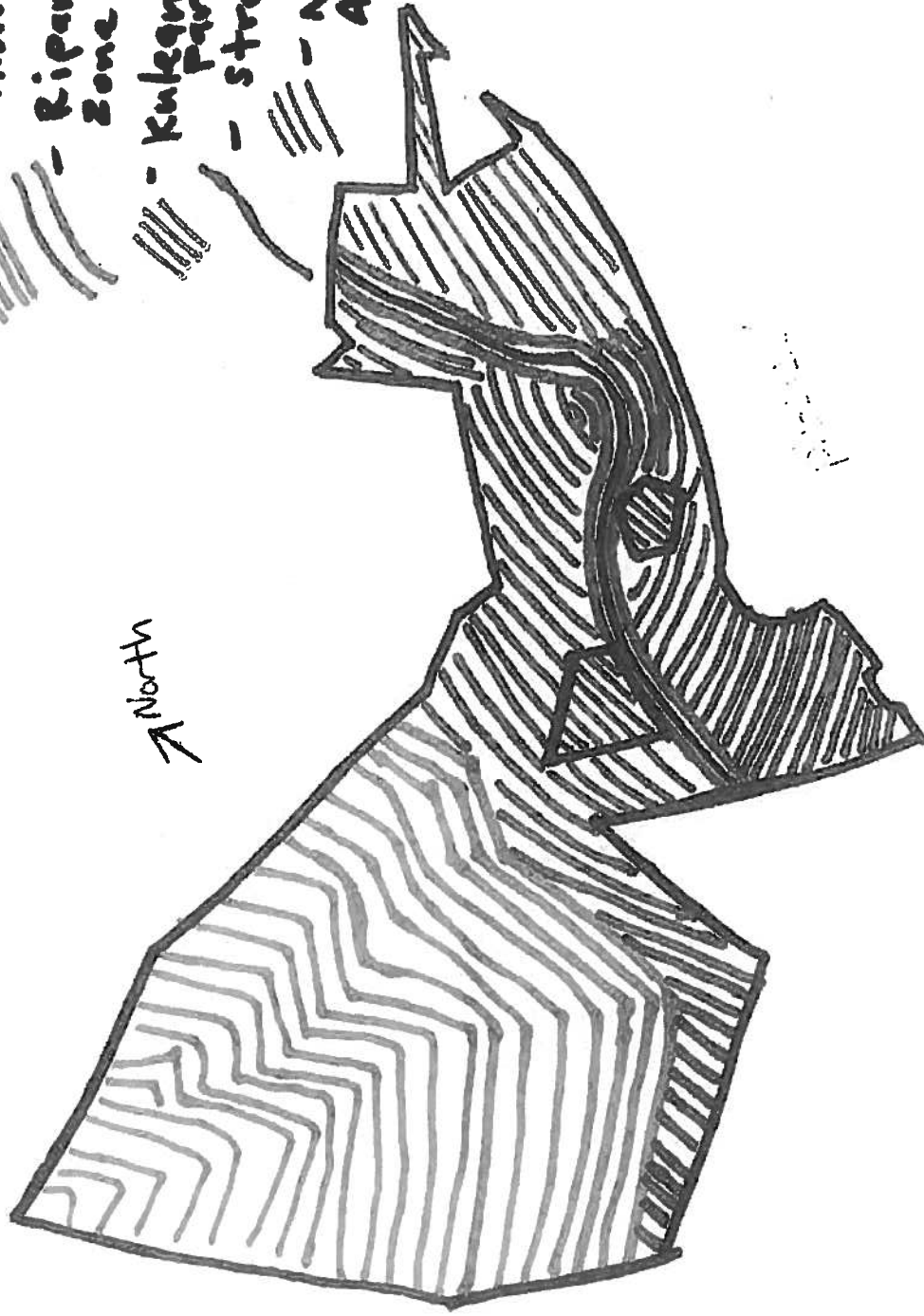
 - Riparian Zone planting

 - Kuleana Parcel

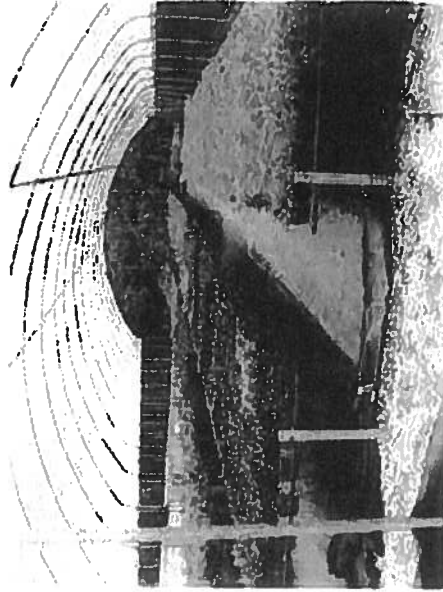
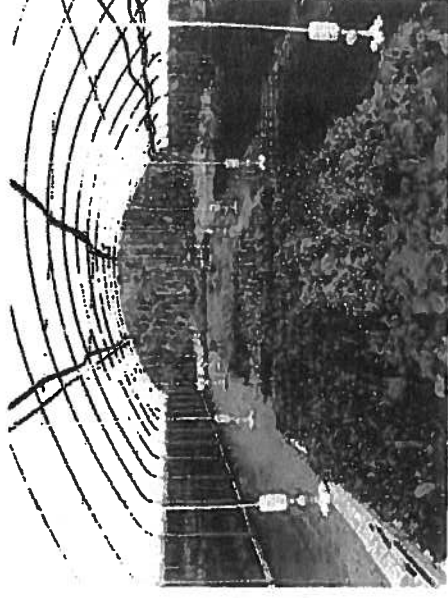
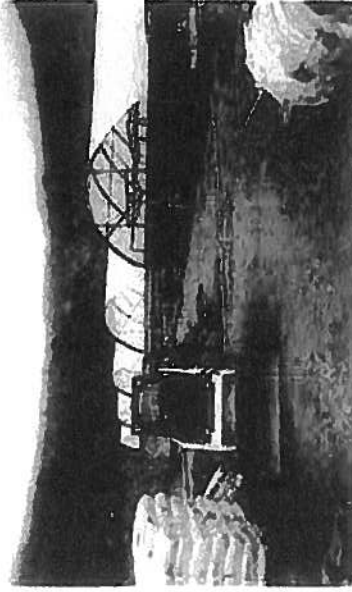
 - stream

 - Nursery Area

North
↖



Nursery



Nursery where outplanting material will be grown for the various reforestation sites

More Revegetating Areas



More open sites for replanting in the background. Foreground will be cleared of invasives and replanted with natives that were found there in the past

Revegetating Sites



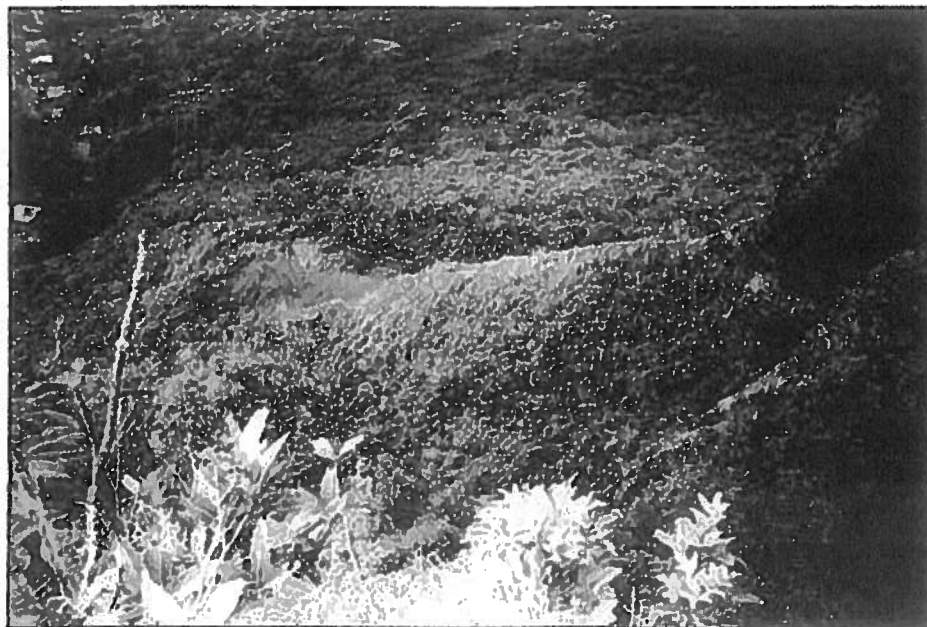
Distance shot of general areas to be reforested and restored with native plants



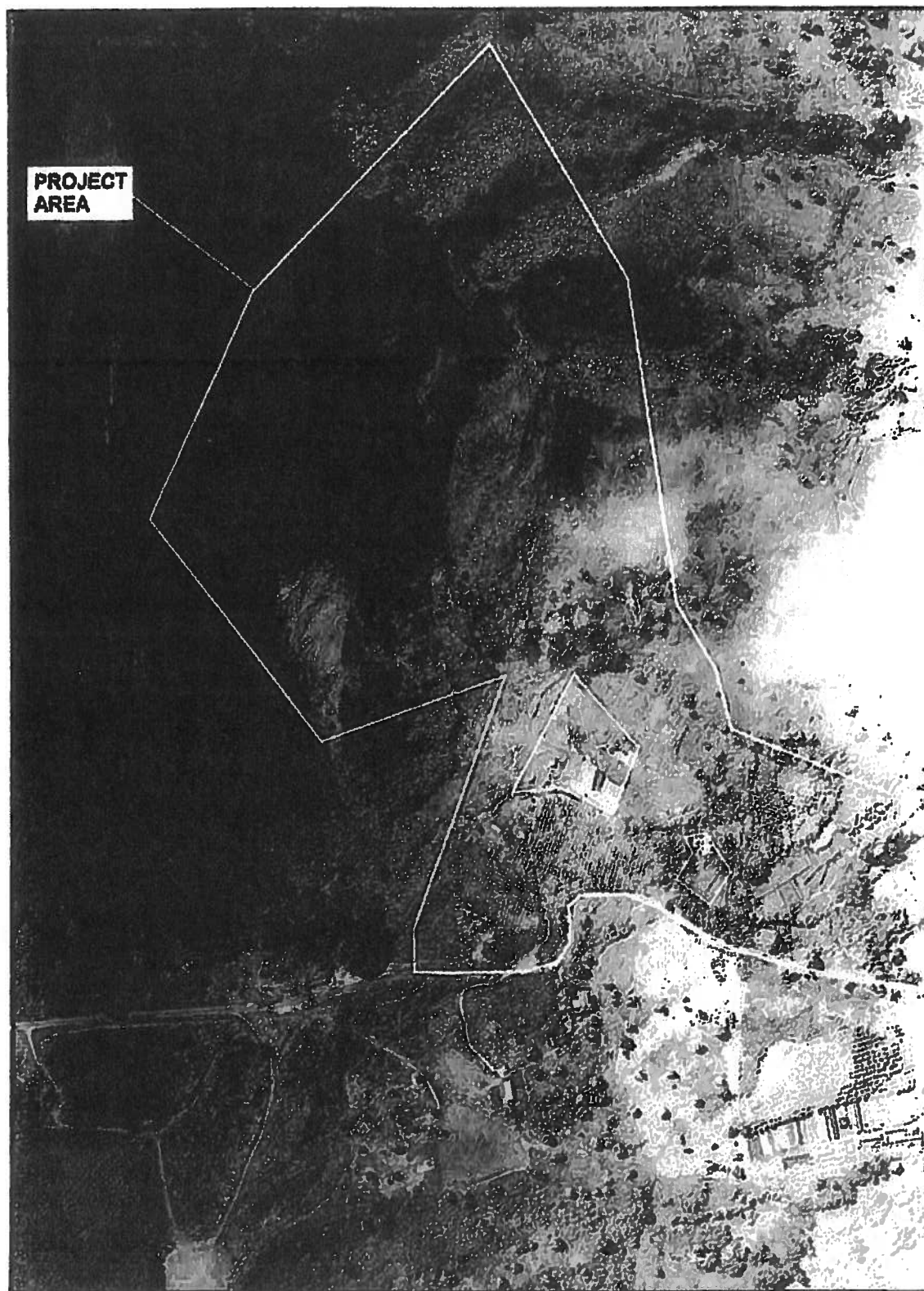
Close up of denuded site to be replanted to reduce erosion control. You can see this spot on the left side of the previous picture



General view of the summit area of the *mauka* portion of the project area.



General view of the southern area of the *mauka* portion of the project area.



1949 aerial photograph, showing the location of the project area.

Resume

Name: Matthew Schirman
Date of Birth: 02/16/1974
Address: 41-888 Kakaina Street
Waimanalo, HI 96795

Education

- 1992 Graduate of Punahou School
- 1998 Bachelor of Arts in Hawaiian Studies from the University of Hawaii
- Concentrated in Conservation Biology for the Hawaiian Islands

Related Work Experience

- 1999 to Present, Formed Hui Ku Maoli Ola Native Hawaiian Plant Nursery

Job Tasks

- Native plant propagation
- Invasive weed management
- Management of employees
- Management of business including finances, taxes and budgeting
- Public relations
- Native plant and ecosystem consultation
- Restoration manager and consultation
- Specialized seed collection
- Out planting manager
- Job estimating
- Restoration and clearing researcher
- Obtaining and fulfilling contracts and work orders

Similar Project Experience

- 2000 to 2001, contacted by Waimanalo Restoration Corps to manage plant collection and propagation
- 2001 to present, began complete management of Waimanalo Restoration Corps projects
- 2001 to present, wet land restoration on Mokapu Peninsula to enhance endangered bird habitat
- 2002, designed and installed informational and educational garden at Waimanalo Elementary Schools
- 2002 to present, Cultural landscape consultant for Kamehameha Schools
- 2002, completed a community based watershed plan for Waimanalo funded by USFWS
- 2002 to present, Board of Director for Moanalua Garden Foundation
- 2002 to present, restoration of 14 acres at Kalaeloa reserve, includes endangered species collection and propagation
- 2003 to 2005, completed DOH project for restoration of Kahawai Stream
- 2003 to present, restoration of 30 acres in Manana forest

- 2003 to present, nearly completed contract with DOH to restore Waimanalo Stream
- 2006, entering into contract with DOFAW to control weeds and outplant 20 acres of plants at Kanaha Ponds (Maui)
- 2006, proposed contract with DOT to Hydro-seed nearly 20 acres of land along H-3

